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# THE AGRICULTURAL • SITUATION •



FEBRUARY 1939

*A Brief Summary of Economic Conditions*

Issued Monthly by the Bureau of Agricultural Economics, United States Department of Agriculture

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NEWS OF THE MONTH included proposals for a world conference of cotton-producing countries to limit excessive production, and recommendations by the International Wheat Advisory Committee of 22 countries meeting at London for a World Wheat Conference to deal with the present world wheat problem of large supplies and low prices. \* \* \* At present world rates of consumption it was indicated that the world carry-over of wheat and cotton next July and August would be the largest on record—the world carry-over of wheat amounting to 1.2 billion bushels, and of cotton approximately 25 million bales \* \* \* Interest centered also in the expanding hog production in the United States. An increase of 21 percent in number of sows bred to farrow in the spring of 1939 compared with 1938 was reported by producers. Production of spring and fall pigs in 1939 may total 80 million head, the largest in 6 years. \* \* \* On January 30 the United States Supreme Court handed down a decision upholding the constitutionality of the Tobacco Inspection Act.

# Commodity Reviews

## DEMAND: SLIGHT INCREASE

FOR several months it has been evident that the sharp rise in industrial activity and consumer purchasing power which started last summer would be halted about the beginning of the new year. Recent events have borne out these expectations, which were based on a study of conditions in the more important industries. During the latter part of December industrial production declined more than seasonally, and this tendency has continued through January. According to preliminary indications the output of industrial products recently has been only slightly above the average for last October.

The movement of prices of farm products in relation to changes in supplies, however, indicates that consumer demand for farm products has continued to increase slightly. This is merely another demonstration of the lag which usually occurs between changes in general industrial activity, consumer income, and the demand for agricultural commodities. If only a moderate and temporary decline in industrial activity occurs during the first quarter of 1939, it may be expected that consumer demand will not be much affected, and will continue to be above the levels prevailing during 1938.

In making their plans, therefore, farmers are interested in the probable degree and length of the slowing down of industrial activity which became evident in early January. Reexamination of the conditions existing in the important industries contributing most to industrial activity discloses no signs of a serious or long-continued recession. Prospects continue for a materially higher level of building construction and automobile production in 1939 than in 1938, and these industries are expected to be bell wethers leading to general improvement in many others.

The resulting larger incomes of consumers should bring a better demand for many miscellaneous consumers' goods.

There has been no large increase in inventories during the last 6 months of 1938 when industrial activity was sharply rising, and general economic conditions, including the Government spending program, are favorable to a continued level of industrial output above the average for 1938. On the other hand, a continuance of the sharp rise which characterized the latter part of 1938 is not expected, and industrial activity, consumer purchasing power, and the domestic demand for farm products are likely to be more stable in 1939 than in 1938.

The foreign situation continues to be unfavorable for United States agriculture. Political uncertainties continue to exert a heavy pressure on general industrial activity in foreign countries, which thus far has given little evidence of following the recovery movement in the United States. Exports of farm products during the last few months have been materially lower than a year earlier.

## INCOME: Decline

Farmers in December received \$613,000,000 in cash income from marketings, and \$39,000,000 in Government payments. Both figures were smaller than the November income, and the total was less than the \$683,000,000 received in December 1937.

The December income raised the total for 1938 to \$7,632,000,000, of which \$7,150,000,000 was from marketings and \$482,000,000 from Government payments. The 1938 total compared with \$8,575,000,000 in 1937, of which \$8,208,000,000 was from marketings and \$367,000,000 from Government payments.

Farmers received \$3,160,000,000 of income from marketings of crops in 1938, as compared with \$3,846,000,000 in 1937. Income from livestock and

livestock products totaled \$3,990,-000,000 in 1938 compared with \$4,362,-000,000 in 1937. Crops yielded proportionately less income than livestock in 1938 compared with 1937.

Cash income from grains as a group totaled \$843,000,000 in 1938 compared with \$1,008,000,000 in 1937; from cotton and cottonseed \$667,000,000 in 1938 compared with \$884,000,000 in 1937; from fruits and vegetables \$906,000,000 compared with \$1,164,-000,000.

Income from meat animals as a group was \$1,893,000,000 in 1938 compared with \$2,039,000,000 in 1937; from dairy products \$1,430,000,000 compared with \$1,530,000,000; from poultry and eggs \$569,000,000 compared with \$637,000,000.

	Income from marketings	From Government payments	Total
December:			
1938...	\$613,000,000	\$39,000,000	\$652,000,000
1937...	675,000,000	8,000,000	683,000,000
1936...	725,000,000	36,000,000	761,000,000
January-December:			
1938...	7,150,000,000	432,000,000	7,632,000,000
1937...	8,208,000,000	367,000,000	8,575,000,000
1936...	7,633,000,000	287,000,000	7,920,000,000

## PRICES: Down

Prices of farm products began the new year at 94 percent of pre-war. This compares with 102 at the beginning of 1938. Prices declined sharply in the winter of 1938, but the underlying factors are considered more propitious this season.

The index of 94 for the last month of record was 2 points lower than the December figure. Sharp declines in prices of eggs occurred during the

### Index Numbers of Prices Received and Paid by Farmers [1910-14=100]

Year and month	Prices received	Prices paid	Buying power of farm products <sup>1</sup>
1938			
January.....	102	126	81
February.....	97	126	77
March.....	96	125	77
April.....	94	125	75
May.....	92	125	74
June.....	92	124	74
July.....	95	123	77
August.....	92	122	75
September.....	95	121	79
October.....	95	121	79
November.....	94	121	78
December.....	96	120	80
1939			
January.....	94	120	78

<sup>1</sup> Ratio of prices received to prices paid.

## Prices of Farm Products

Estimates of average prices received by farmers at local markets based on reports to the Bureau of Agricultural Economics. Average of reports covering the United States weighted according to relative importance of district and States.

Product	5-year average, August 1909-July 1914	January 1910-14	January 1938	December 1938	January 1939	Parity price, January 1939
Cotton, lb.....	cents 12.4	12.2	7.8	8.2	8.3	15.6
Corn, bu.....	do 64.2	58.9	52.2	43.1	45.1	80.9
Wheat, bu.....	do 88.4	88.4	88.6	53.6	57.1	111.4
Hay, ton.....	dollars 11.87	11.87	8.79	6.81	6.79	14.96
Potatoes, bu.....	cents 69.7	64.2	54.1	61.4	64.4	85.4
Oats, bu.....	do 39.9	39.0	30.0	24.4	26.3	50.3
Soybeans, bu.....	do (1)	(1)	87.5	67.4	71.9	-----
Peanuts, lb.....	do 4.8	4.6	3.3	3.3	3.4	6.0
Beef, cattle, cwt.....	dollars 5.21	5.04	5.93	6.40	6.68	6.56
Hogs, cwt.....	do 7.22	7.03	7.59	6.90	6.96	9.10
Chickens, lb.....	cents 11.4	10.8	16.7	13.6	14.0	14.4
Eggs, doz.....	do 21.5	28.0	21.6	27.9	18.8	<sup>3</sup> 33.9
Butterfat, lb.....	do 26.3	29.2	33.5	27.0	25.2	<sup>3</sup> 34.9
Wool, lb.....	do 18.3	18.5	21.6	20.2	20.0	23.1
Veal calves, cwt.....	dollars 6.75	6.78	8.32	8.04	8.30	8.50
Lambs, cwt.....	do 5.87	5.79	7.15	7.08	7.33	7.40
Horses, each.....	do 136.60	133.70	<sup>2</sup> 87.40	79.80	82.00	172.10

<sup>1</sup> Prices not available.

<sup>2</sup> Revised.

<sup>3</sup> Adjusted for seasonality.



month. Prices of dairy products dropped more than usual for this time of year.

Products on the upside from December 15 to January 15 included the groups: grains, cotton and cottonseed, fruits (an increase in apples and pears more than offset a decline in citrus fruits), and meat animals.

### **COTTON: Burdensome**

Cotton is much in the news, with various groups proposing ways of dealing with the burdensome supply situation. The world carry-over of cotton next August 1, it is brought out, will be the largest on record—totaling about 25 million bales, which is the equivalent of a full year's consumption requirements. Of the present supply in the United States, the Government is holding more than 11 million bales as collateral against loans to growers.

Discouraging has been the continued decline in exports of United States cotton, exports from August 1 last to January 19 totaling little more than 2 million bales as compared with 3.7 million bales in the like period a year earlier. But despite this decline, United States prices have held at about the level of a year earlier. The 10-market average price for Middling  $\frac{7}{8}$ -inch cotton was 8.62 cents on January 20 compared with 8.61 cents at the same time in 1938. Principal price-supporting factors include the Government loan program and the comparatively high domestic consumption. United States mills in December consumed 31 percent more cotton than in December 1937.

Regulations for distributing price adjustment payments based on 1929 plantings of cotton were announced by the Agricultural Adjustment Administration in January. Preliminary estimates indicate that the rates of payments for cotton will likely fall within the range of 1.6 to 1.8 cents per pound. The regulations provide that payments will be made on the normal yield of the acreage allotment established under the 1939 Agricultural Conservation Program.

### **WHEAT: Big Supply**

Estimates of world wheat production in 1938-39 were raised slightly during the past month, and on the basis of estimated consumption for the year it appears that the world carry-over on July 1 next will be the largest on record—amounting to about 1,230 million bushels.

Of this total carry-over, about 300 million bushels will be in the United States. This compared with a United States carry-over of 154 million bushels on July 1 last, and with the all-time high record of about 360 million bushels on July 1, 1933. Favorable in the domestic situation is an 18 percent reduction in the 1939 winter wheat acreage compared with 1938.

Domestic wheat prices are above world prices, but the amount of this spread will continue to depend largely upon Government purchases for export and upon prospects for the 1939 domestic crop. Beneficial moisture was received in January in the winter Wheat Belt but more was needed in western Iowa, and in parts of Missouri, Kansas, and Oklahoma.

Wheat sales for export from the United States from July 1 last to January 15 totaled 78 million bushels of which about 53 million bushels had been exported. Exports for the full marketing year are expected to total about the same as for the year beginning July 1, 1937, when 100 million bushels were exported.

The International Wheat Advisory Committee representing 22 countries met in London last month, and appointed a special committee to prepare recommendations on agenda for a World Wheat Conference to deal with the present world wheat problem of large supplies and low prices.

### **FEED: Large Supply**

The total supply of feed grains—corn, oats, barley, and grain sorghums—on farms January 1 was the largest in 6 years. Supplies had decreased by about the same number of tons as in the period 1927-36 between

October 1 and January 1. Unless the rate of disappearance is increased substantially more than average, the carry-over on farms next July will be larger than in 1933 and much more than in other recent years.

**Corn:** Farm and commercial stocks of corn on January 1 totaled 1,850 million bushels, compared with 1,709 million bushels a year earlier, and with average January 1 stocks of 1,357 million bushels during the 10 years 1928-37, which included several drought years. The disappearance of 833 million bushels of grain corn during the last quarter of 1938 was slightly below the 1927-36 average but well above the disappearance in the same period of the preceding 4 years.

**Wheat:** Farm stocks of all wheat on January 1 were 281 million bushels compared with 209 million on January 1, 1937, and a 10-year average of 216 million. The disappearance of farm supplies during the last quarter of 1938 was below average but larger than in the same quarter of any previous year since 1932. The decrease in farm stocks from October 1, 1938, to January 1, 1939, was 126 million bushels compared with 118 million a year earlier and the 10-year average of 129 million.

**Oats:** Farm and commercial stocks of oats on January 1 totaled 703 million bushels, which compared with stocks of 724 million on January 1, 1937, and the 1928-37 average of 655 million bushels. The disappearance of oats from farms during the last quarter of 1938 was rather light, only 164 million bushels compared with the 10-year average of 203 million bushels. Disappearance in the last quarter of 1937 was 209 million bushels.

### **CATTLE: Marketings Cut**

A reduction in total marketings of slaughter cattle is in prospect during the first half of 1939 compared with 1938. Slaughter supplies of grain-fed cattle are expected to increase more than seasonally during the next 4 or 5 months. This will be accompanied by seasonally reduced marketings of the

lower grades through winter and spring.

Basis for the increase in supplies of grain-fed cattle is a 7-percent increase in cattle on feed in the Corn Belt States this January 1 compared with last, offset only in part by decreases in other important feeding areas. Cattle went into the feed lots at heavier weights this year. The proportion to be marketed after March is the largest reported in 10 years.

It is probable that there were slightly more cattle on farms this January 1 than last. Barring the recurrence of severe droughts, numbers may be expected to increase for several years. Expansion will be effected chiefly by withholding cows, heifers, and heifer calves from slaughter. This means a probable decrease in total cattle slaughter during the next 2 or 3 years, but indications are that the trend in hog slaughter and in total meat supplies will be upward during this period.

Cattle prices were firm in December and January. In early January Good grade steers at Chicago sold about \$2 higher than a year earlier. Prices of Good grade slaughter cows and of stocker and feeder steers were the highest for the period since 1930. The higher prices reflected the improvement in consumer demand for meats since midsummer and the seasonal reductions in cattle marketings since early fall. Consumer demand for meats is much better than at this time last year. A depressing factor is the increased market supply of hogs.

### **HOGS: MANY PIGS**

Seventy-one million pigs were produced in 1938, and the increase—about 15 percent—is being translated now into an equivalent increase in the slaughter supply of hogs. The 1938 pig crop was the largest since 1933 when the output was about 84 million head. It compares with an average of 80 million head in the 5 years 1929-33.

In addition, a 21-percent increase in the number of sows to farrow this spring compared with last has been

reported by farmers. If feed crop production this year is near average, the combined spring and fall pig crop of 1939 may total or exceed 80 million head.

A 1939 pig crop of 80 million head would increase hog marketings in the year beginning next October to a level at least as high as that prevailing before the 1934 drought. In this case, inspected hog slaughter would be the largest since 1932-33. Consumer demand is much improved as compared with a year ago, but not enough to offset the large supply of hogs already on the market and in prospect. Prices already are below early 1938 figures.

Unfavorable also is the outlook for lard. Storage stocks of lard on January 1 were only slightly above the 1933-37 average for that date, but production from the prospective increased output of hogs in 1939-40 would increase the supply of lard far above normal domestic consumption requirements.

During the 1925-29 period the United States exported the lard from about 22 million hogs, or about 33 percent of the total slaughter. Since 1929 the foreign outlet for hog products has been sharply reduced. In the 3 years 1935-37 we exported the lard from less than 10 percent of our total hog slaughter. There seems little likelihood of increasing in the next few years the exports of lard to the 1925-29 level.

### LAMBS: On Feed

About 5.7 million head of sheep and lambs were on feed in the principal feeding States January 1. This was 5 percent smaller than a year earlier, but somewhat larger than the average for the 5 years 1933-37. The decrease this year compared with last in the Corn Belt was 4 percent; in the Western Sheep States, 6 percent.

Slaughter supplies of sheep and lambs will be smaller during the remainder of the fed-lamb marketing season (through April) this year than

last, when such supplies were of near-record proportion. Supplies of grass-fat yearling lambs and of early spring lambs in Texas also will be smaller, unless further rains improve the grazing conditions.

Prices of slaughter lambs were a little higher in early January than a year earlier, reflecting stronger consumer demand for meats and reduced slaughter supply of sheep and lambs. Wool prices improved slightly in early January.

Continued improvement in domestic mill consumption indicates that stocks of raw wool in the United States at the opening of the 1939 season in April will be smaller than a year earlier. Mill consumption also has improved in some European countries in recent months.

### POTATOES: Smaller Supply

Stocks of potatoes in the 37 late and intermediate States totaled 100.8 million bushels on January 1. This was 11 percent less than on the same date last year. Also, the indications are that the production of new potatoes in the 3 fall and early groups of States will be slightly smaller than in 1938. The acreage planted or to be planted in these areas is indicated to be 5 percent smaller than last year.

Stocks of old potatoes are 14 percent smaller than a year ago at this time in both the Eastern and Western groups of States, but only about 4 percent smaller in the Central States. This distribution of supplies, together with a continuation of the upward trend in the motortruck movement, indicates that carlot shipments will be unusually small this winter.

An analysis of the utilization of the late and intermediate potato crops indicates that a larger quantity of potatoes were lost through shrinkage, decay, and culling prior to January 1 this year than last, but that fewer potatoes were fed to livestock. The total thus accounted for comprised about 8.5 percent of the crop compared with 7.6 percent the previous season.



Based upon the quantity of potatoes reported to be saved for seed and the proportion of the acreage to be planted with home-grown seed, a 4-percent decrease in acreage in the 37 late and intermediate States in 1939 compared with 1938 is indicated.

## TRUCK CROPS: Lower Prices

Crop prospects improved for winter and early spring vegetables during the past month, and marketings increased. Market prices in mid-January were generally lower than in mid-December, but potato prices were slightly higher.

Fall and winter production of snap beans, beets, cucumbers, eggplant, peppers, cabbage, and spinach is indicated to be larger than a year earlier. Production of fall and early carrots, cauliflower, celery, kale, and lettuce is indicated to be smaller. Acreage indications for early onions and fall and early tomatoes are smaller than a year earlier.

January 1 stocks of Danish type cabbage were  $2\frac{1}{2}$  times as large as a year earlier, and of late onions about 8 percent larger. The sharply increased stocks of late cabbage combined with the large crop of new cabbage has forced cabbage prices to relatively low levels.

Stocks of canned vegetables also were relatively large on January 1, about one-third larger than a year earlier. Shipments from canneries from the beginning of the season to January 1 were evidently smaller than in the corresponding period of the previous season.

## FRUITS: More Citrus

Improved production prospects for winter oranges in California and for tangerines in Florida were noted in January. About 1.2 million boxes were added to the December indications for winter oranges, making a total of 50.7 million boxes. This would be an increase of about 11 percent over the preceding year.

Fruit news of the month included the establishment of systems of minimum "on tree prices" for grapefruit in Texas and Florida. Prices of grapefruit have been much lower this season than last. The minimum "on tree" price in Florida was set at 32 cents per box; in Texas, 40 cents per box for white marsh and seeded pinks, 60 cents for seedless pinks to be marketed as fresh fruits, and \$3.50 per ton for canning fruits.

Prices of apples have averaged much higher this season than last. The movement of apples out of storage in December was one of the largest on record, reducing January 1 holdings to 26.3 million bushels. These holdings were about 18 percent less than on the same date last year.

A 29-percent increase in early production of strawberries in Florida this season compared with last was indicated in January. Carlot shipments to the middle of January were relatively heavy, totaling 170 cars against only 2 cars to the same date a year earlier. Terminal market prices were about half the prices in January 1938.

## DAIRYING: Near Peak

Milk production, relatively heavy this winter, is expected to continue so during the remainder of the feeding period. January 1 output was about 4 percent larger than a year earlier and about the same as the peak for that date in 1932. Production of principal manufactured dairy products also has been relatively heavy this winter, and a continuation of this situation is expected during the first half of 1939.

Butterfat prices are about average in relation to feeds. Feed supplies are relatively large, favoring abundant feeding. Receipts of milk and cream at eastern markets decreased as business declined in 1937-38, but this decline appears to have been checked and increased receipts are now in prospect. Market prices of butter and cheese have declined since the seasonal peak in early December; the seasonal low

point usually is reached in midsummer.

Apparent consumption of the principal manufactured dairy products is following the upward trend of production.

### EGGS: Prices Break

Farm prices of eggs broke sharply during the past month, declining about 30 points in the Government index of prices. Chickens also have held to relatively low price levels. The January 15 average farm price of eggs per dozen was 19 cents, compared with 28 cents on December 15, and with 22 cents in January a year earlier. Chickens per pound averaged 14 cents on January 15, against 14 cents on December 15, and 17 cents in January 1938.

January 1 production of eggs per layer and per farm flock was the largest on record for that date, reflecting favorable weather, abundant feed supplies, and a favorable feed-egg price ratio. The increase in the size of the farm laying flock during 1938 was the largest of record, with more potential layers on hand at the close of the year than for several years past.

### Export, Imports

Under the combined influence of large United States crops and a recession in business activity, foreign trade in most agricultural products during 1938 was lower on the import side and higher on the export side than during 1937.

The conspicuous exception to the rise in exports was cotton. Especially large increases took place in exports of wheat and other grains. In the case of fresh pears, 1938 exports were about two and three-fourths those for the 6-year average period, 1924-29.

With the exception of leaf tobacco, imports of all commodities shown in the accompanying table were lower during 1938 than 1937. Particularly large declines took place in imports of wool, barley malt, hides and skins, and flaxseed. These commodities fell to a level far below the average annual imports during the 6 years 1924-29.

A continued reduction in imports of grains and meat products is in prospect during the first half of 1939. The prospective export picture is not clear at this time, because of unsettled foreign economic and political conditions.

United States: Exports and Imports of Specified Agricultural Commodities, Average 1924-29, Annual 1937 and 1938, and December 1937 and 1938

Commodity	Unit	Year ended December 31			December	
		Average 1924-29	1937	1938 Preliminary	1937	1938 Preliminary
<b>Exports:</b>		<i>Thousands</i>	<i>Thousands</i>	<i>Thousands</i>	<i>Thousands</i>	<i>Thousands</i>
Bacon, hams, and shoulders <sup>1</sup> .....	Lb.....	369,691	42,858	63,559	4,670	4,678
Lard, including neutral.....	Lb.....	788,210	136,778	204,603	22,295	19,198
Wheat, including flour.....	Bu.....	184,854	55,776	111,481	11,857	6,970
Apples <sup>2</sup> .....	Bu.....	14,100	7,901	11,793	1,148	1,705
Pears, fresh.....	Lb.....	63,245	130,450	177,134	18,053	28,467
Tobacco leaf.....	Lb.....	521,802	417,759	472,854	58,500	52,283
Cotton, excluding linters (500 pounds).....	Bale.....	8,474	6,070	4,577	807	388
<b>Imports: <sup>3</sup></b>						
Cattle.....	No.....	338	507	434	9	40
Beef, canned, including corned.....	Lb.....	<sup>4</sup> 37,271	88,097	78,597	3,355	6,819
Hides and skins, agricultural.....	Lb.....	<sup>5</sup> 426,062	308,749	179,273	15,653	25,500
Barley malt <sup>6</sup> .....	Lb.....	888	371,243	100,576	12,582	7,775
Sugar, excluding beet (2,000 pounds).....	Ton.....	4,380	3,196	2,974	150	52
Flaxseed.....	Bu.....	19,882	28,032	15,364	1,672	1,474
Tobacco, leaf.....	Lb.....	72,574	60,794	60,841	5,547	4,156
Wool, excluding free in bond <sup>6</sup> .....	Lb.....	144,281	159,560	34,253	3,106	4,576

<sup>1</sup> Includes Cumberland and Wiltshire sides.

<sup>2</sup> Includes barrels, baskets, and boxes in terms of bushels.

<sup>3</sup> General imports prior to 1937. Subsequently, imports, for consumption.

<sup>4</sup> Includes a small amount of "Meats canned, other than beef."

<sup>5</sup> Includes reptile and fish skins.

<sup>6</sup> Imports for consumption.

# Our Agricultural Trade With Latin America

RECENT events have stimulated interest in the agricultural trade between the United States and Latin America. A survey of the situation in respect to this trade brings out some interesting developments characteristic of recent years.

More than half of the export trade to Latin America that was lost between 1929 and 1932 has been regained in the past 5 years. United States agricultural and industrial exports to the 20 Latin American countries totaled 902 million dollars in 1929, 193 million in 1932, and 570 million in 1937. This recent increase in exports to Latin America is relatively greater than the increase in our exports to the rest of the world. The latter rose from 1,576 million dollars in 1932 to 3,295 million in 1937. However, Latin America takes only about one-fifth of our total world exports.

IN recent years there has been an increase in our agricultural exports to Latin America. The rise was from 37 million dollars in 1932 to approximately 53 million in 1937. This compares with 129 million in 1929. Latin America purchases only about 7 percent of our agricultural exports to all countries. The chief customers are Cuba, Mexico, Panama, Venezuela, Argentina, Colombia, and Brazil, which together take more than four-fifths of our agricultural exports to Latin America. Of these, Cuba alone accounted for more than 40 percent of the total in 1937.

The major agricultural exports to Cuba are flour, lard, fruits and nuts, rice, meats, and certain vegetables, particularly potatoes. Cuba's purchases of these commodities from the United States in 1937 amounted to more than 18 million dollars, or 87 percent of her total agricultural purchases from this country. Our exports to Cuba give a general indication of the chief agricultural items exported to all of Latin America.

In general, wheat flour and lard are the leading agricultural exports to the tropical countries, while specialty products—such as fresh fruits and canned goods—are important exports to the subtropical and temperate-zone countries. Neither cotton nor tobacco, our leading agricultural export items, find important markets in Latin America.

ON the import side, too, there have been interesting developments. Our total agricultural and nonagricultural imports from Latin America at the end of 1937 were substantially above those of 1932, a record-low year. However, they were not much more than half as large as in 1929, the record-high year. In 1929 we imported merchandise valued at 1,014 million dollars, compared with 323 million in 1932 and 656 million in 1937. The increase since 1932, although quite substantial, is less than the increase in our exports to Latin America for the corresponding period. These imports from the 20 Latin-American countries represent slightly more than one-fifth of our total imports from all countries.

Approximately 90 percent of our total imports from Latin America—or imports valued at 532 million dollars in 1937—represent agricultural items. However, almost half of this sum consists of articles, which may be termed complementary—goods which are not produced on a commercial scale in this country. These complementary imports were valued at 365 million dollars in 1929, 170 million dollars in 1932 and 189 million dollars in 1936. They include items such as coffee, bananas, cocoa, sisal, and henequen, wool of a special type for carpet-making, rubber, and spices. These seven articles represented 99 percent of the value of our complementary agricultural imports in 1936, and approximately 43 percent of the value of all agricultural imports from Latin America. Of relatively minor impor-



tance are such complementary articles as drugs and herbs, American fibers, taqua nuts, and distilled oils.

**T**HE remaining agricultural imports are what may be termed supplementary; that is, those which are the same as, or readily substituted for, domestic products. The imports of these tend to vary in relative importance from year to year. The most important are sugar, vegetable oil seeds, cattle hides, dutiable wool, unmanufactured tobacco, meat and meat products, molasses, vegetables and vegetable preparations. In recent years, corn has been imported, chiefly from Argentina, to supplement our short crops in the United States. These supplementary imports from Latin America amounted to 369 million dollars in 1929, about 84 million in 1932, and 221 million in 1936.

Sugar is by far the most important of the supplementary items from the standpoint of value. Imports of sugar were valued at approximately 159 million dollars in 1929, 39 million in 1932, and 98 million in 1936. These values represent 43 percent, 47 per-

cent, and 44 percent, respectively, of the total supplementary imports from Latin America. Imports of sugar are largely from Cuba, and their entry into the United States is limited by quota. They are needed to supplement our domestic production, which is insufficient to meet domestic requirements. Similarly, cattle hides, wool, and certain types of tobacco, fruits, and vegetables are imported in order to meet the total requirements or the full-year requirements of the domestic market.

Cuba and Argentina are the most important sources of supplementary imports, as indicated by the value of our imports of sugar, vegetable oil seeds, tobacco, cattle hides, and wool—the bulk of which come from these two countries. On the other hand, Cuba was the chief Latin American market for agricultural exports from the United States in 1937, while Argentina was a close second.

**I**n general, it seems that those countries in Latin America that furnish us with the bulk of our supplementary imports constitute the chief market

#### United States: Trade With Latin America for Specified Years

Year	Total exports to Latin America		Total imports from Latin America	
	Value	Share of exports to world	Value	Share of imports from world
	<i>1,000 dollars</i>	<i>Percent</i>	<i>1,000 dollars</i>	<i>Percent</i>
1913-14.....	275,466	11.8	467,946	24.7
1929.....	902,470	17.5	1,014,127	23.1
1932.....	192,844	12.2	323,190	24.4
1936.....	390,690	16.2	500,561	20.7
1937.....	570,120	17.3	656,243	21.8

Year	Agricultural exports to Latin America		Agricultural imports from Latin America	
	Value	Share of exports to world	Value	Share of imports from world
	<i>1,000 dollars</i>	<i>Percent</i>	<i>1,000 dollars</i>	<i>Percent</i>
1913-14.....	57,816	5.2	379,297	38.2
1929.....	128,936	7.6	734,282	33.1
1932.....	37,834	5.7	253,885	38.0
1936.....	35,695	5.0	410,593	33.4
1937.....	52,710	6.6	532,225	33.7

Compiled from "Foreign Commerce and Navigation of the United States," and official records of the Bureau of Foreign and Domestic Commerce.



for our agricultural exports. Those countries which excel as suppliers of agricultural imports to us of a complementary nature, are of relatively minor importance as markets for our agricultural goods. Brazil is a notable

exception, since it is both a major supplier of complementary imports and a major Latin American outlet for our agricultural exports.

J. L. APODACA.

## Farmer's Share of Consumer's Food Dollar

THE farmer's share of the consumer's dollar spent for a representative list of 58 foods in 1938 was the smallest in 4 years. It amounted to 40 cents, as compared with 45 cents in 1937, with a low of 33 cents in 1932, and an average of 53 cents in 1913-15 when this Government compilation was started. The decline of 5 cents in 1938 was the first decline since the drop from 38 cents in 1931 to the 26-year low of 33 cents in 1932.

The following table gives, for selected years, data on retail value of 58 foods combined in quantities representing consumption by a typical workingman's family, as well as the amount received by farmers for farm products required to supply these foods. The margin between farm value and retail value represents all costs and charges for marketing, processing, transportation, and distribution required to bring these 58 foods from the farmer to the consumer. Expressing the farm value as a percentage of the retail value gives a measure of the farmer's share of the

consumer's dollar spent for foods which should adequately reflect the trend.

The retail value of 58 foods decreased 9 percent in 1938, corresponding to a drop of approximately the same percentage in total national non-agricultural income. The 1938 retail value of \$321 remained well above both the pre-war level of \$256 and the recent depression level of \$270 in 1932.

A STRIKING feature of the margins shown in the table is their rigidity during the last 4 years, in which they have varied less than 2 percent. The margin of \$191 in 1938 was only 1 percent below the 1937 margin of \$193 and not greatly different from the margins of \$190 in 1936 and \$193 in 1935.

During the years 1922 to 1936, variation in the margin of 58 foods was closely associated with variation in hourly earnings received by nonagricultural wage workers, but the two series have diverged markedly during the last 2 years when wage rates increased sharply while margins changed only slightly. This implies some increase in labor efficiency during 1936, 1937, and 1938, but it is very improbable that a substantial rise could have occurred in so short a period.

The processing taxes inflated the margins for 1934 and 1935, and since the taxes were removed in 1936 the margin has not decreased by the full amount of the tax. This is probably due in part to the increase in wage rates. Price margins between farmers and consumers contain many inflexible charges such as transportation rates, commission rates, and rentals, which prevent rapid adjustment to changes

58 Foods <sup>1</sup> Produced by American Farmers

Year	Farm value	Retail value	Margin	Farmer's share of food dollar
Average:	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>	<i>Percent</i>
1913-15...	135	256	121	53
1929.....	195	415	220	47
1932.....	83	270	182	33
1934 <sup>2</sup> .....	108	295	187	37
1935 <sup>2</sup> .....	138	331	193	42
1936.....	152	342	190	44
1937.....	160	353	193	45
1938.....	130	321	191	40

<sup>1</sup> Quantities of 58 foods consumed annually by a typical workingman's family.

<sup>2</sup> The retail value and the margin include processing taxes amounting to about \$10 in 1934 and \$11 in 1935.

in levels of retail prices and consumer incomes.

Farmers received \$130 in 1938 from the sale of products yielding the 58 foods. This amount was 19 percent below the 1937 farm value of \$160 and was 4 percent below the amount paid farmers for the same products during the pre-war period 1913-15. The 1938 farm value was 48 percent larger than the depression low of \$88 occurring in 1932.

**I**F margins continue to change as little as has been the case during the last 4 years, both farm value of 58 foods and the farmer's share of the consumer's food dollar may be expected to follow the direction of change in retail value. An improvement in 1939 consumer income over 1938 such as is now anticipated should lead to some increase in the proportion of the consumer's food dollar received by farmers during the coming year.

Long-time trends in the farmer's share of the consumer's dollar should

not be identified with corresponding changes in the economic status and well-being of the farmer. Many developments such as shifting of agricultural production toward specialization in areas more distant from markets and more processing of foods for consumers may increase margins or decrease the farmer's share of the consumer's food dollar without having any adverse effects upon the farmer's economic position, provided that consumer incomes and food expenditures are relatively free from fluctuation.

However, if consumers' food expenditures undergo a sharp decline, wide margins carry this back to the farmer as a much more severe depression of farm income than would be the case with narrow margins between farm and retail prices. Of course, under any circumstances, cutting down of these margins through increasing the efficiency of existing functions and facilities should benefit both farmers and consumers.

R. O. BEEN.

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## Farm Employment and Productivity

**F**ARM employment has declined in the last 30 years despite a marked increase in agricultural production. Approximately 10.7 million farm family and hired workers in 1938 produced 25 to 30 percent more farm products than 12.2 million workers produced in 1909.

From 1909 through 1919 there was a decrease of approximately one million persons in farm employment. Most of this occurred in 1917-19 as wartime industrial production took men from the farms, and new types of power machinery were introduced into agriculture. After the World War there was an increase of about 4 percent in agricultural employment through 1926, due largely to an expansion in crop production in the West and to a shift from extensive to intensive crops. From 1926 through 1938 there was a decrease of about 800

thousand persons in agricultural employment.

The net decrease in average employment for the entire 30-year period from 1909 through 1938 was 1.5 million workers. Whereas in 1909 there was an average of 9.3 million farm family workers employed, in 1938 there were 8.2 million. In 1909 monthly employment of hired farm workers averaged 2.9 million and in 1938 only 2.5 million. The number of family workers was at its peak in 1909, but the peak number of hired workers was 3 million in 1926.

**O**VER the long-time period the most impressive reasons for the reduction in farm employment have been the increased mechanization of agriculture, the use of improved production methods and practices, the use of better plant varieties and breeds of

livestock, and the transfer of much work formerly done on the farms to centralized points in towns and villages.

The scarcity of labor and high wage rates during and immediately following the World War greatly stimulated the use of machinery. In the Winter Wheat Belt, for example, by the use of combines, it has been estimated that an acre of wheat can now be cut, threshed, and hauled to local shipping points with only one-third of the man hours of labor required a quarter century ago.

Natural conditions somewhat limited the early use of machinery to areas of relatively level terrain and where farming units were large, but in recent years the area over which machinery may be used has been extended by the introduction of smaller sized tractors, combines, and other equipment. The latest development has been the increased use of rubber tires on farm machinery, further increasing the efficiency of mechanical appliances.

**I**MPROVED farming practices and methods also have effected an increase in the production efficiency of the farm worker. Further accelerating the increase in output per worker have been the shifts in crop and livestock production as between regions and a shift from intensive to extensive production methods. For example, the acreage of cotton in the older eastern areas has declined and the acreage in Oklahoma and Texas increased during a large part of the 30-year period. Increased production per worker in the western areas has been made possible by the use of extensive methods and larger farming equipment.

The breeding of higher yielding and of insect- and disease-resistant strains of plants has contributed to the increased productivity in agriculture by both increasing the yields and by cutting down losses with the expenditure of little, if any, increased amount of farm labor. To cite a few examples, the contributions of the plant breeders include hybrid corn, improvement in

the quality of cotton, bunt resistant wheat, and various disease and insect resistant strains of some of our more common vegetables.

Improved breeds of livestock that are more efficient in converting raw agricultural materials into food, fiber, or power are the contributions of animal husbandry to increased agricultural productivity. The possibilities of still further improvement in livestock breeding may be indicated by the fact that registered Shorthorn steers in controlled experiments have shown a difference of more than 50 percent in the time required to reach a given weight and that some superior flocks of hens have produced an average of more than 200 eggs per year per hen while the average for the country is only about 80. Such animals may require more care and attention, but here again the result is the same—less man power required per unit of output.

**T**HERE also has been a shift in the character of the work done on the farm over the past 30 years that has contributed to the decrease in agricultural employment. Many things formerly done by the farmer and his family are now done for him by others. For example, home canning, butchering, butter making, and similar activities have been largely transferred to off-the-farm plants.

Labor-saving machinery requires much less time for upkeep than do horses, and of even greater importance has been the transfer from the use of farm-raised fuel, or feed for work stock, to the use of industrially processed fuel for tractors, trucks, and automobiles. The magnitude of this shift is illustrated by estimates showing that the advent of the tractor, truck, and automobile, together with the increased mileage of hard-surfaced roads, has released 40,000,000 acres of cropland and as much more pasture for meat and milk production and has induced vast regional shifts in crop and livestock production.

Although such factors have resulted



in a decrease in the amount of work done on farms they may not represent corresponding decreases in the total employment in the country, but rather a transfer of activities from the farm to the city.

ALL of the increases in productivity per worker that the foregoing factors have made possible have not been realized due to a plentiful supply of workers and relatively limited opportunities for employment off the farm during the last few years. Farm employment has not declined at a rate corresponding to the increased efficiency possible, due in part to a material shortening in the length of the workday and the increase in agricultural production during the past 30 years. Unfavorable growing conditions after a crop has been planted often result in a far greater reduction in yields than in the amount of labor required for normal crop operations. Hence, the full productivity of the worker is seldom realized year after year.

The effects of all these factors upon the various areas of the country have been widely different. The increase in productivity of workers over the past 30 years or, conversely, the reduction in the number of workers required to handle a definite volume of agricul-

tural production under former and present techniques, has been greatest in those areas which have been mechanized to the greatest degree. It has been least in areas where natural or other conditions rendered the adoption of labor-saving equipment uneconomical or retarded the rate of their adoption. Part of these changes, however, must be attributed to the use of improved plants and more efficient livestock.

CONTINUATION of the decline in agricultural employment and increase in the productivity of manpower is of vital importance to the social and economic structure of the country. The influence of such items as increasing mechanization, improvement in plants and animals, declining exports, and the development of industrial uses for agricultural products and others should be the concern of those who plan for the future. Not only the direction but also the point of impact of such factors upon the social life will affect the welfare of both those directly dependent upon agriculture for a livelihood and of those dependent upon other industries.

ELDON E. SHAW,  
*Agricultural Adjustment  
Administration.*

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## Regional Changes in Hog Production

THE regional distribution of hog production has changed markedly in recent years. Production has increased in some regions and declined in others. A succession of drought years and short supplies of relatively high-priced corn sharply reduced production in the Corn Belt. The price of hogs went up and this tended to stimulate production in other regions. In the last 2 years there has been a sharp recovery in the Corn Belt States and continued increases in other regions.

Within a period of 3 years—from 1933 to 1935—total production of hogs dropped from the largest to the smallest in 15 years of Government record. Production increased a little in 1936

Hog production is expanding. More than 71 million pigs were produced in 1938. This compares with the low record of 55 million in 1935, and the all-time high of 84 million in 1933. A further increase is in prospect in 1939, when the output may total 80 million pigs.

Marked changes have occurred in the regional distribution of the hog industry during the last 6 years, and these are discussed in the accompanying article. It is the first of three on recent developments in the livestock industries. An article on changes in the cattle industry will appear next month.—Ed.



but was struck down again by drought. In the last 2 years there have been sharp increases in all regions, and a further increase is in prospect in 1939. Total production in 1939 may equal or exceed the 1929-33 5-year average output of 80 million pigs.

THE regional changes in production dating back to 1925 are shown in

the accompanying table of yearly pig crops. It is shown that production in the Corn Belt increased from 58 million pigs in 1929 to 64 million in 1933. But by 1935 the production was down to 38 million. In 1938 the production expanded to 48 million, and a further expansion is in prospect during the current year.

Yearly Pig Crops  
Estimated Number of Pigs Saved by Regions  
[Thousands of head]

	Average 1929-33	1925	1929	1933	1935	1938	1938 as percent of—		
							1929-33 average	1925	1933
East North Central.....	20, 174	17, 433	18, 247	23, 022	15, 442	20, 147	100	116	88
West North Central.....	41, 011	35, 955	40, 229	40, 670	22, 646	27, 812	68	77	68
North Central.....	61, 187	53, 388	58, 476	63, 692	38, 088	47, 959	78	90	75
North Atlantic.....	1, 378	1, 658	1, 396	1, 366	1, 270	1, 673	121	101	122
South Atlantic.....	4, 941	4, 510	4, 667	5, 255	4, 943	6, 590	133	146	125
East South Central.....	4, 232	3, 582	3, 787	5, 066	4, 196	5, 634	133	157	111
West South Central.....	5, 117	4, 429	4, 557	5, 927	4, 583	6, 427	126	145	108
Western.....	3, 177	2, 740	3, 242	2, 893	2, 006	2, 805	88	102	97
United States.....	80, 032	70, 310	76, 125	84, 200	55, 086	71, 088	89	101	84

Even within the Corn Belt the production has registered differing trends during the last 6 years. In the Eastern Corn Belt, the pig crop had increased from 18 million head in 1929 to 23 million in 1933, and the annual average during this period was 20 million head. Production dropped sharply to 15 million head in 1935, but in 1938 the output was about equal to the predrought average.

Production in the Western Corn Belt has made a much smaller recovery in the last 3 years, the pig crop of 28 million in 1938 comparing with 23 million in 1935, and with 41 million in 1933. The 1938 figure was 68 percent of the predrought average, 77 percent of 1925, 68 percent of 1933, and about 123 percent of 1935. An additional increase is expected this year.

Of equal interest are the trends shown for the other regions, and especially for the South. The pig crop in the 3 principal southern regions combined increased from 13 million head in 1929 to 16 million in 1933. The number dropped to 14 million in

1935, then increased, and in 1938 the total was 19 million head—the largest in 15 years of record.

THE estimates of annual pig crops in total and by regions go back only to 1925. For earlier years the records of numbers of hogs on farms each January 1 are available. These are presented in the table on page 16, which shows that the peak year of numbers on January 1 for none of the regions was during the last 15 years. For the Corn Belt the peak year was 1923, and slaughter and marketing records indicate that the pig crop of 1922 was larger than in any of the 15 years of record but somewhat smaller than in 1923. The peak year for the South Atlantic, East South Central, and Western States was in 1919 and for the West South Central it was 1911.

These peak numbers, when compared with any year since 1919, indicate that hog production in the South at the close of the World War was at a considerably higher level than it has ever been since. Numbers

## Hogs on Farms January 1

(Thousands of head)

	East North Central	West North Central	North Central	North Atlantic	South Atlantic	East South Central	West South Central	West	United States
Peak year.....	1923 16,057	1923 32,620	1923 48,677	1884 2,637	1919 7,045	1919 6,935	1911 6,765	1919 2,718	1923 69,304
1926.....	11,962	25,930	37,892	1,221	4,012	3,330	3,567	2,083	52,105
1930.....	11,566	28,810	40,376	1,210	4,161	3,527	4,147	2,284	55,705
1933.....	14,716	28,095	43,411	1,203	4,672	4,605	5,722	2,514	62,127
1935.....	9,921	14,616	24,537	1,009	4,092	3,853	3,863	1,650	39,004
1938.....	12,137	15,879	28,016	1,190	4,677	4,203	4,171	2,161	44,418

in the two decades prior to 1919, on the other hand, averaged much nearer the peak numbers than they have in the two decades since 1919.

It is certain that numbers of hogs on farms January 1 in the Corn Belt since 1919 have been a smaller proportion of pigs raised than in years before 1919. Hence comparisons of hogs on farms before 1919, and after that date, do not give accurate indications as to changes in pigs saved or in hog production. This relationship has probably undergone a somewhat similar change in other regions, but to less extent.

But after allowance is made for this, it seems highly probable that hog production in the South during the first two decades of this century was on a considerably higher level than it has been since; also that the present high level is below that of the higher years in the earlier period.

THERE is considerable difference in methods of hog production among the various regions. One difference is in the percentage that the spring pig crop is of the total crop. This percentage is the largest of all regions in the Western Corn Belt. Hence, as

the proportion of the Western Corn Belt pig crop in the total pig crop declined, the percentage of spring pigs of the total also declined. (The table at the bottom of this page shows for the United States and for the Corn Belt the percentage that spring pigs were of the total pig crop for the years 1924 to 1938.)

The change in the percentage of spring pigs in the total has been reflected in a changed seasonal distribution of commercial hog slaughter. The percentages of the total for the marketing year (October 1 to September 30) slaughtered in the first quarter and in the first half of the year have decreased. In the past the slaughter during the first quarter (October through December) gave a good indication of yearly slaughter, when adjustment was made for the hog-corn price ratio prevailing. For the 1937-38 marketing year this indication gave a total much larger than the actual and it is highly probable that the same indication for the 1938-39 marketing year will be similarly faulty. (See the August 1938 issue of the *Agricultural Situation* for a discussion of the seasonal distribution of slaughter.)

### Spring Pigs As Percentage of Total Pigs

	United States	Corn Belt		United States	Corn Belt		United States	Corn Belt
1924.....	68	71	1929.....	66	70	1934.....	70	75
1925.....	68	72	1930.....	66	70	1935.....	59	61
1926.....	67	71	1931.....	65	69	1936.....	63	65
1927.....	67	71	1932.....	62	65	1937.....	62	66
1928.....	67	70	1933.....	63	66	1938.....	61	66

HOG production is expected to make a further marked increase in 1939. The number of sows to farrow in the spring of 1939 is indicated as 21 percent larger than the number farrowed in the spring of 1938. This follows an increase in the spring of 1938 over 1937 of 11 percent. The following table shows the number of sows farrowed in the spring by regions for 4 selected years and the indicated number to farrow in the spring of 1939.

### Sows Farrowing in Spring

[Thousands]

	East North Central	West North Central	North Central	North Atlantic	South Atlantic	East South Central	West South Central	West	United States
1925.....	1,803	4,930	6,733	134	404	328	459	276	8,334
1933.....	2,190	4,908	7,098	114	521	488	612	289	9,122
1935.....	1,385	2,120	3,805	102	460	381	464	182	5,364
1938.....	1,763	3,037	4,800	136	590	477	578	244	6,825
1939 <sup>1</sup> .....	2,086	3,723	5,809	151	657	595	732	283	8,237

<sup>1</sup> Indicated by December Pig Crop Report.

## Narrower Price Range Helps Tobacco Growers

SOME improvement of advantage to flue-cured and Burley tobacco growers has been made this season in the price mechanism on tobacco auction markets. There has been a much narrower range in prices of practically identical qualities of tobacco sold on individual auctions. As a result most growers' shares in the total returns for the crop have been more equitable and just. There has also been greater confidence and reliability in values.

The wide variations in prices of nearly identical qualities of tobacco sold on the auctions have been the basis of complaints of long standing among tobacco growers. Seasonal changes effected by new developments in the supply and demand situation were understandable, but it was hard for individual growers to see why one producer should get a very different price for his tobacco from that received by another producer selling the same

In the North Atlantic and three southern regions the 1939 numbers are much above any other year shown and are much above any other year of record; in the East North Central and Western regions the numbers are about up to the high year of 1933, but in the West North Central the number is still much below 1933 or 1925 and much below any year of record back of 1934.

C. L. HARLAN.

quality of tobacco on the same market the same day.

THREE years ago the Bureau of Agricultural Economics began a study of auction prices in connection with the development of tobacco inspection and market news services. Since then, a large volume of price data has been accumulated and comparisons made which show that the complaints of the growers as to price ranges have been well founded. In the 1936-37 season, for example, there was an average difference of 12.9 cents a pound between the high and low points of the daily range of two-thirds of the sales of orange-colored fourth quality leaf (U. S. Standard grade B4F) made on type 12 markets where tobacco was officially inspected and graded.

More tobacco of this grade is sold than of any other in the type 12 Gov-



ernment classification. In 1936-37 the average price for the season for grade B4F was 20.5 cents, and the lowest price was 52 percent of the highest of the two-thirds range. (All ranges mentioned herein were computed by eliminating the one-sixth of all sales made at the lowest prices in the total range for the day and the one-sixth of the total sales made at the highest prices.) The following season, 1937-38, there was an average difference of 12 cents a pound between the high and low points of the daily range, the average price for the season was 25 cents, and the lowest price was 64 percent of the highest within the two-thirds range.

**D**URING the present season, 1938-39, the same grade averaged 23.5 cents in price, but the average difference between the high and low points of the daily range was cut almost in half and amounted to only 6.8 cents. The proportion of the lowest price to

the highest within the range was also increased to 76 percent. Speculators on the markets complained that their business had been adversely affected by narrowing of the range in prices, but for the tobacco growers there was a much greater comparability in prices received by individual producers of practically identical qualities of tobacco.

Grade B4F has been cited only as a convenient example of conditions on the tobacco auctions. The figures indicating the narrowing in range of prices are typical of the situation in a majority of other types and grades of flue-cured tobaccos. Summaries of Burley data also are expected to show a narrowing of the price range this season.

The Bureau expects to continue its studies of prices in flue-cured and Burley markets to determine whether the improvements this season are maintained in the future.

W. H. STOLTING.

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## Quality Improvement of American Cotton

**A**ERICAN cotton has been a standard textile raw material for the mills of the world almost since the beginning of a modern textile industry. It is well suited to the needs of cotton textile manufacturers. It includes a wide range of qualities in substantial quantities and is sold on the basis of a modern system of standardization. This system of standardization is coordinated with a research program which has as its principal objectives the improvement of quality and of marketing methods and procedures.

As concrete evidence of progress in the improvement of the quality of American cotton, preliminary figures for the 1938 crop indicate an average staple length of about 1 inch. A decade ago the crop averaged only slightly longer than fifteen-sixteenths inch. This marked improvement in staple length has resulted in part, no doubt, from variations in growing conditions and from shifts in cotton

production, but the cotton program of the United States has been an outstanding factor accounting for the production of a larger proportion of longer staple cotton.

**P**LANT BREEDERS in this country have developed high-yielding longer staple varieties and farmers have been encouraged to plant these varieties. The Agricultural Extension Service in some of the States has promoted the planting of better seed, as have seed breeders, farmers' organizations, and others. The promotion of one-variety communities by the United States Department of Agriculture has played an important part in quality improvement in some parts of the Belt.

Cooperative marketing associations have bought cotton on a quality basis. This has discouraged "hog-round" buying and has tended to make farmers "quality conscious." Complete grade and staple statistics, price



studies and improvements in market news and classification service also have helped to stimulate interest in higher quality cotton.

Improvement in the quality of cotton is, of course, not a cure-all for all the difficulties besetting American cotton in world markets. But it is an important part of the cotton program in the United States. And as a result of this work the competitive position of American cotton has been strengthened insofar as its physical adaptability to world needs is concerned.

**T**HE United States produces as wide, if not a wider range of qualities of cotton than any other country. It produces in substantial quantities almost every length of staple the world mills require. Although the United States is ordinarily thought of as a producer of medium staple lengths, production of cotton  $1\frac{1}{8}$  inches and longer amounted to nearly a million bales in 1937, and that of  $1\frac{1}{16}$  inches and longer exceeded 2.5 million bales. Egypt—noted for the production of long staple cotton, mainly  $1\frac{1}{8}$  inches and longer—produced a total crop of only 2 million bales in 1937.

The United States produced, in 1937, about 8.5 million bales ranging in staple from  $1\frac{1}{16}$  to  $1\frac{1}{2}$  inches. Southern Brazil—now a leading producer of medium staple cotton, largely of American varieties—produced in that year a total crop of less than 1.5 million bales. In the same year, the United States produced more than 7 million bales of cotton shorter than fifteen-sixteenths inch in staple. This compares with a total crop of about 5 million bales of Indian cotton in 1937, mainly shorter than seven-eighths inch.

**M**UCH has been said in recent years about improvements in the quality of cotton in foreign countries. But in most of these competing countries no one can say definitely or accurately just what these improvements have been. No authoritative statistics are available similar to those in the United

States. Moreover, in many countries where cotton quality improvement programs are under way, the improved cottons are strains of well-known varieties produced and developed in the United States.

One reason why little is definitely known about the quality of cotton produced in foreign countries, except in a general way, is that few of these countries have made much progress in establishing quality standards. In contrast, detailed information is available as to the grade and staple of American cotton based upon reliable statistics and a long-established modern system of standardization which is being steadily improved.

Grade and staple statistics are available currently for both the American crop and carry-over, so that domestic and foreign buyers may have reliable information as to the qualities of cotton available and where in the Belt the cotton is produced. In addition, practical forms of the Universal Standards for the grade of American cotton are available for use in the leading cotton markets of the world.

**U**NITED STATES cotton packaging and marketing methods are being studied and improved. To demonstrate the results of research and investigations into marketing practices and to emphasize the high quality of American cotton produced in one-variety communities, the Department of Agriculture has undertaken this season to ship a few thousand bales of carefully ginned and baled cotton from these communities. This cotton will be sold to foreign spinners in lots assembled from the same one-variety areas.

This program has been partially completed for the 1938 season. The cotton was purchased from growers by marketing agencies on a net weight basis and it will be sold abroad on the same basis. The cotton was sampled at the gins and information as to variety, grade, staple, and point of production has been retained and will be made available to foreign buyers.

The cotton was packaged in cotton bagging and the bales were not cut for sampling as usual under the prevailing system of marketing American cotton.

If this program is successful in demonstrating the merits of American cotton and improved marketing prac-

tices it will be extended and made a part of the general program of basic research and related activities now under way to strengthen the competitive position of American cotton in world markets.

CARL H. ROBINSON.

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## Finding Normal Farm Values

ONE of the most important contributions made by the Farm Credit Administration to the field of farm mortgage credit is the appraisal of farm lands on the basis of normal value. Since 1933, the Federal land banks and the Land Bank Commissioner have made nearly a million mortgage loans based on normal agricultural value. The use of normal value as a basis for lending not only interests many farmers; it is also being studied carefully by some of the leading private agencies engaged in the extension of farm mortgage credit.

What are the advantages of the normal value basis of appraisal? First, it is a safeguard against lending a farmer more money than he can repay. An agency which lends a farmer too much money when conditions are favorable not only does the borrower an injustice but also subjects itself to the risk of having to acquire the property later on. The purpose of using appraised values and income-estimates based on normal prices of farm products is to create an effective means of safeguarding both farmers and lending agencies against embarrassment and loss.

AMERICAN history recounts many a boom and depression periods. Land values have been as inconstant as April weather. Both farmers and lenders have usually been too optimistic in good times and too pessimistic in periods of low prices. Lending institutions have been inclined to base loans upon a fixed percentage of the current sale price of a farm, or upon repaying ability in accordance with current prices of products.

This practice had fairly satisfactory

results when prices were normal or below, but in periods of high prices it resulted in a too liberal extension of credit, and consequent losses. Foreclosures were numerous during the hard times which followed the Civil War; again in the nineties; and in the years which followed 1929. On the basis of 1909 to 1914=100, the index of land values in the United States rose to 170 in 1920, after which it declined for a period of years, reaching 73 in 1932. In certain States the extremes were much wider. At that time nearly a million farmers were threatened with foreclosure.

The Federal Farm Loan Act of 1916 provided that earning power should be a principal factor in determining the value of land as a basis for Federal land bank loans. To this, the Emergency Farm Mortgage Act of 1933 added the provision that appraisals should be made on the basis of normal value. The combined result was that normal earning power was to be a principal factor in the value of farms for lending purposes.

THE extension of mortgage credit is a problem which relates principally to the future, for the reason that while a loan is actually made today, the payment of interest and repayment of principal are to be made at some future date or dates. Therefore, the problem is one of estimating how much farmers will be able to repay over the period in the future for which the loans are made. Whether or not we wish to, it becomes necessary to forecast the prices of farm commodities which will prevail over a period of future years.

After making a study of the prices of

farm products during the period from 1798 to 1932, the Farm Credit Administration adopted as a base the level which existed during the 5-year period, 1909 to 1914. Since the latter was a rather brief period, it was necessary to make adjustments to reflect trends and changes in the economic position of individual commodities. Some commodities have attained a more favorable, and others a less favorable, economic position than they had in the years 1909 to 1914. For instance, the price of oats has lost ground since the World War. Adjustments in the prices of such commodities have been made in accordance with trends for the period 1920 to 1934.

In certain instances, additional adjustments have been made on the basis of the outlook for particular commodities. Such adjustments may reflect a material change in the relative cost of production, or an apparent permanent change in the foreign market situation, or a shift in demand which is very slowly reflected in production, as in the case of orchard properties.

**T**HE normal agricultural value of a farm is considered as the amount a purchaser who is representative of the area and type of farm would be willing to pay and would be justified in paying for the property for agricultural purposes, including farm home advantages, assuming average production and normal prices for farm products.

An appraisal consists of a careful inventory of both land and buildings. The land is classified in accordance with its productivity and its utilization by a typical owner of the particular unit. The buildings are examined for material, construction, and design to determine their durability and their suitability to community standards, as well as to the needs of the farm.

With full consideration to its productivity, home advantages, and points of desirability, the property is then valued, first, by assigning acre values to the different classes of land, insurable value and farm value to each

of the buildings, and then by assigning a value to the property as a whole. The latter is referred to as "the normal agricultural value."

The Farm Credit Administration does not use the so-called "capitalization method" whereby the estimated annual earnings are capitalized at some rate of interest to give a value or a preliminary figure which is adjusted for evident advantages or disadvantages of the property. It is believed that this method is full of possibilities of error, and invites the manipulation of figures. It is likely either to cause the appraiser to get the wrong answer or to lead him to change his figures to get what his common sense tells him is the answer.

**M**ORE consistent and dependable conclusions have resulted when an experienced appraiser applies a schedule of reasonable acre values which are justified by normal sales, reasonable yields of principal crops, and the average acre net income. The appraiser also considers the value of the farm buildings to a typical operator. These factors should enable him to arrive at a farm unit value which represents a sound consideration of the worth of the farm to a typical owner.

To check on this value the appraiser must find the answer to a number of other questions. For instance: What has this farm, and similar farms in the community sold at in the past? What is the farm worth in the opinion of substantial farmers and businessmen in the locality? If it is a livestock unit, what is its carrying capacity? If in an area where renting is common, what is the rate of return on a rental basis? What is the return to an owner operator? The loan recommendation is further checked by the estimated debt-paying ability from farm earnings of the particular owner, and that of an average farmer.

**T**HE character of the soil is one of the important factors in the value of a farm. The appraiser must be able to judge accurately its productiv-



ity and suitability for the purposes for which it will be used. As an aid in doing so, he familiarizes himself with soils information developed by agencies of the Government and the particular State. In going about his work he observes the yields of crops on various lands farmed in different ways. He makes a careful examination of the farm he appraises, making use of the soil auger, as needed, and obtaining all the pertinent information available with regard to the productivity, durability, condition, and other qualities of the land.

Before an appraiser can determine how much debt a farm owner will be able to repay, he must have a dependable estimate of income and expenses. It has been said that necessary farm living expenses constitute the real "first mortgage" on any farm. The expenses of producing the year's crops are a "second mortgage", taxes a "third", and upkeep a "fourth." For collection of debts in case of default a first mortgage is commonly regarded as a first lien, but it never has better than a fifth or sixth claim on the earnings of a going farm enterprise. For this and other reasons the Federal land banks and other creditors have stressed

the importance of accurate estimates of income, operating expenses, and living costs in making appraisals for farm mortgage loans.

WE have come a long way since 1933. At that time the aftermath of the boom period had very nearly wrecked our basic conceptions of farm land values. In 1933, there was practically no farm real estate market except the market made by foreclosure sales. When the Farm Credit Administration was organized, some of the best farm land in America was being sold at ridiculously low prices to collect the debts on it. The decision to refinance farm mortgages on the basis of normal value took courage.

The result of this policy was return of confidence, recovery of land prices, and the return of private agencies to the farm mortgage lending field. Yet the real test of this policy lies ahead. It will have to be faced whenever prices go to high levels. The determination to continue to lend on the basis of normal values in the face of inflated prices of farm real estate will take real courage.

F. F. HILL.

*Governor, Farm Credit Administration.*

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## RICE: Prices Up

The average price received for rice by Louisiana farmers has advanced about 8 cents per bushel since the harvesting of the 1938 crop, while prices received by California farmers have remained practically unchanged. The average prices received by farmers in both Louisiana and California in mid-January, however, were about 5 cents per bushel below prices a year earlier. Lower prices this year are accounted for largely by some increase in supplies and a less favorable general demand situation. With some improvement in the general demand situation in prospect, the rice situation may show some improvement during the next few months.

The total United States supply of 16.4 million barrels of rice on August 1

was much larger than for any other recent year except 1937 when supplies totaled 17.2 million barrels. Combined stocks of rough and milled rice remaining in the Southern States on January 1 totaled about 8.5 million barrels or about the same as January 1 supplies last year. In California about 4.0 million barrels remained on January 1 compared with 3.1 million barrels a year earlier.

Exports of rice during the first 4 months of the present marketing year, beginning August 1, totaled about 103 million pounds compared with 108 million during this period a year ago. With the exception of 1937, however, this was the largest quantity of rice exported during the same period in more than 15 years.



# Industrial Production Declines

DECEMBER 1938 indexes of the various measures of domestic demand, contained in the accompanying tabulation, showed a continuation of the upward trend which first appeared around midyear. However, weekly indexes of business and production indicate that the upward trend was halted about mid-December and that some recession has since taken place.

It is anticipated that the Federal Reserve Board index of industrial production (adjusted for seasonal varia-

tion) declined from 104 in December to around 100 in January.

This recession in productive activity will no doubt be followed by some slowing up in the gain, or perhaps even a slight recession, in national income. However, if the decline in productive activity is limited to a fairly short period, as now appears likely, any recession in consumer income and purchasing power that may be induced will be of minor consequence.

P. H. BOLLINGER.

## Measures of Domestic Demand

[1924-29=100]

	December				Percent change		
	1929	1933	1937	1938	1937-38	1933-38	1929-38
National income.....	105.1	67.5	96.1	92.4	-4	+37	-12
Nonagricultural income:							
Total.....	106.5	69.8	98.4	94.5	-4	+35	-11
Per capita.....	100.5	64.3	87.5	83.4	-5	+30	-17
Factory pay rolls:							
Total.....	98.1	54.8	81.6	83.9	+3	+53	-14
Per employed wage earner.....	96.7	68.8	86.3	92.1	+7	+34	-5
Industrial production:							
Total.....	96.4	70.2	78.6	97.4	+24	+39	+1
Factories processing farm products.....	98.1	86.1	88.0	110.8	+26	+29	+13
Other factory production.....	93.3	61.5	68.6	89.9	+31	+46	-4
Construction activity:							
Contracts awarded, total.....	84.3	50.4	50.4	81.0	+61	+61	-4
Contracts awarded, residential.....	54.6	12.5	26.9	51.0	+90	+308	-7
Employment in production of building materials.....	87.5	42.6	61.7	60.5	-2	+42	-31
Cost of living:							
Food.....	101.8	67.0	79.6	75.7	-5	+13	-26
"All other items".....	97.5	81.9	86.3	85.8	-1	+5	-12
Purchasing power of nonagricultural income per capita:							
For food.....	98.7	96.0	109.9	110.2	(1)	+15	+12
For "All other items".....	103.1	78.5	101.4	97.2	-4	+24	-6

<sup>1</sup> Less than 1/2 of 1 percent.

NOTE.—All indexes adjusted for seasonal variation except "Cost of Living."

## FARM EMPLOYMENT: Estimates

On January 1 there were 1,629,000 hired hands on farms, compared with 1,711,000 at the beginning of 1938. In addition, there were 7,138,000 farm family workers this January 1 compared with 7,051,000 a year ago. The total—8,767,000—this January 1 compares with 8,762,000 at the beginning of 1938.

Farm wage rates averaged 117 percent of pre-war on January 1, compared with 118 percent a year earlier, and with 110 percent on January 1,

1937. Farm wage rates per month, with board, averaged \$24.86 at the beginning of 1939 compared with \$25.18 a year ago, and with an annual average of \$22.09 during the period 1910-14.

Rates per month, without board, averaged \$34.92 this January 1, compared with \$34.70 a year earlier, and with the pre-war average of \$29.18. The supply of farm labor was about 20 percent in excess of the demand for labor on January 1 this year.

# General Trend of Prices and Wages

[1910-14=100]

Year and month	Whole-sale prices of all commodities <sup>1</sup>	Industrial wages <sup>2</sup>	Prices paid by farmers for commodities used in <sup>3</sup> —			Farm wages	Taxes <sup>4</sup>
			Living	Production	Living and production		
1920.....	225	222	222	174	201	242	209
1921.....	142	203	161	141	152	155	223
1922.....	141	197	156	139	149	151	224
1923.....	147	214	160	141	152	169	228
1924.....	143	218	159	143	152	173	228
1925.....	151	223	164	147	157	176	232
1926.....	146	229	162	146	155	179	232
1927.....	139	231	159	145	153	179	239
1928.....	141	232	160	148	155	179	238
1929.....	139	236	158	147	153	180	241
1930.....	126	227	148	140	145	167	238
1931.....	107	208	126	122	124	130	217
1932.....	95	179	108	107	107	96	188
1933.....	96	172	109	108	109	85	161
1934.....	109	183	122	125	123	95	153
1935.....	117	192	124	126	125	103	155
1936.....	118	200	122	126	124	111	156
1937.....	126	215	128	135	130	126	161
1938.....	115	207	-----	-----	<sup>5</sup> 122	124	-----
1938-January.....	118	204	-----	-----	126	118	-----
February.....	116	207	-----	-----	126	-----	-----
March.....	116	208	123	128	125	-----	-----
April.....	115	204	-----	-----	125	121	-----
May.....	114	201	-----	-----	125	-----	-----
June.....	114	202	122	126	124	-----	-----
July.....	115	205	-----	-----	123	129	-----
August.....	114	209	-----	-----	122	-----	-----
September.....	114	214	121	122	121	-----	-----
October.....	113	212	-----	-----	<sup>5</sup> 121	126	-----
November.....	113	207	-----	-----	<sup>5</sup> 121	-----	-----
December.....	112	212	-----	-----	<sup>5</sup> 120	-----	-----

Year and month	Index of prices received by farmers [August 1909-July 1914=100]								Ratio of prices received to prices paid
	Grains	Cotton and cottonseed	Fruits	Truck crops	Meat animals	Dairy products	Chickens and eggs	All groups	
1920.....	232	248	191	-----	174	108	223	211	105
1921.....	112	101	157	-----	109	156	162	125	82
1922.....	106	156	174	-----	114	143	141	132	89
1923.....	113	216	137	-----	107	159	146	142	93
1924.....	129	212	125	150	110	149	149	143	94
1925.....	157	177	172	153	140	153	163	156	99
1926.....	131	122	138	143	147	152	159	145	94
1927.....	128	128	144	121	140	155	144	139	91
1928.....	130	152	176	159	151	158	153	149	96
1929.....	120	144	141	149	156	157	162	146	95
1930.....	100	102	162	140	133	137	129	126	87
1931.....	63	63	98	117	92	108	100	87	70
1932.....	44	47	82	102	63	83	82	65	61
1933.....	62	64	74	105	60	82	75	70	64
1934.....	93	99	100	103	68	95	89	90	73
1935.....	103	101	91	125	118	108	117	108	86
1936.....	108	100	100	111	121	119	115	114	92
1937.....	126	95	122	123	132	124	111	121	93
1938.....	74	70	73	101	114	109	108	95	<sup>7</sup> 78
1938-January.....	91	66	70	105	110	128	113	102	81
February.....	89	68	68	111	110	121	94	97	77
March.....	85	70	69	101	117	117	93	96	77
April.....	82	71	68	98	114	110	93	94	75
May.....	79	71	77	88	111	103	98	92	74
June.....	77	68	73	92	116	98	99	92	74
July.....	72	71	79	99	123	101	103	95	77
August.....	62	69	78	92	115	102	105	92	75
September.....	63	69	75	107	117	104	118	95	79
October.....	60	72	70	107	111	107	124	95	<sup>7</sup> 79
November.....	60	73	71	102	111	109	131	94	<sup>7</sup> 78
December.....	63	70	73	108	109	112	127	96	<sup>7</sup> 80
1939-January.....	66	71	76	96	112	109	97	94	<sup>7</sup> 78

<sup>1</sup> Bureau of Labor Statistics Index with 1926=100, divided by its 1910-14 average of 68.5.

<sup>2</sup> Average weekly earnings, New York State factories. June 1914=100.

<sup>3</sup> These indexes are based on retail prices paid by farmers for commodities used in living and production reported quarterly for March, June, September, and December. The indexes for other months are interpolations between the successive quarterly indexes.

<sup>4</sup> Index of farm real estate taxes, per acre, 1913=100.

<sup>5</sup> Preliminary.